

10/770,724

IN THE SPECIFICATION:

Please amend paragraphs 23, ³⁵37, 40 and 48 of the specification as follows:

SS 3/18/09

[0023] The other detector 20 comprises an amplitude detector operating to determine contrast agent information using a method different from detector 15. For example, receive signals are combined and the result amplitude detected by a B-mode detector or a Doppler detector. The detector 20 detects contrast agent information. For example, any of the detectors and associated transmit and receive sequences disclosed in U.S. Patent Nos. _____ and _____ (U.S. Application Serial Nos. 09/514,803 and 09/650,942) 6,494,841 and 6,682,482, the disclosures of which are incorporated herein by reference, are used. These detectors detect contrast agent information in response to different interpulse phase and/or amplitude modulation. Such detection methods may provide signals representing primarily contrast agent or contrast agent absent tissue information. In other embodiments, the detector 20 detects both contrast agents and tissue information, such as with single pulse or multi-pulse harmonic B-mode imaging. High power transmissions, low power transmissions or combinations of both may be used to avoid or cause destruction of contrast agent as part of imaging contrast agent. In one embodiment, contrast agent data is detected in response to multiple low power pulses with both interpulse amplitude and phase modulation.

[0035] As shown in FIG. 3, the first processor 24 includes a noise frame processor 30, a soft tissue processor 32, and a gain processor 34. The noise frame processor 30 generates an estimate of electronic or thermal noise as the noise varies over the frame. The soft tissue processor 32 generates a smoothed surface indicative of the intensity of soft tissue within an image frame at various locations in the frame. The gain processor 34 uses outputs from the processors 30 and 32 to adaptively adjust or determine either the average gain, depth gain and/or lateral gain. In one embodiment, one or more of the methods and systems of U.S. Patent Nos. 5,579,768; 6,398,733 or _____ (U.S. Application Serial No. ~~10/176,274~~) 6,679,844, the disclosures of which are incorporated herein by reference, are used to determine one or more gain parameters for the tissue information.